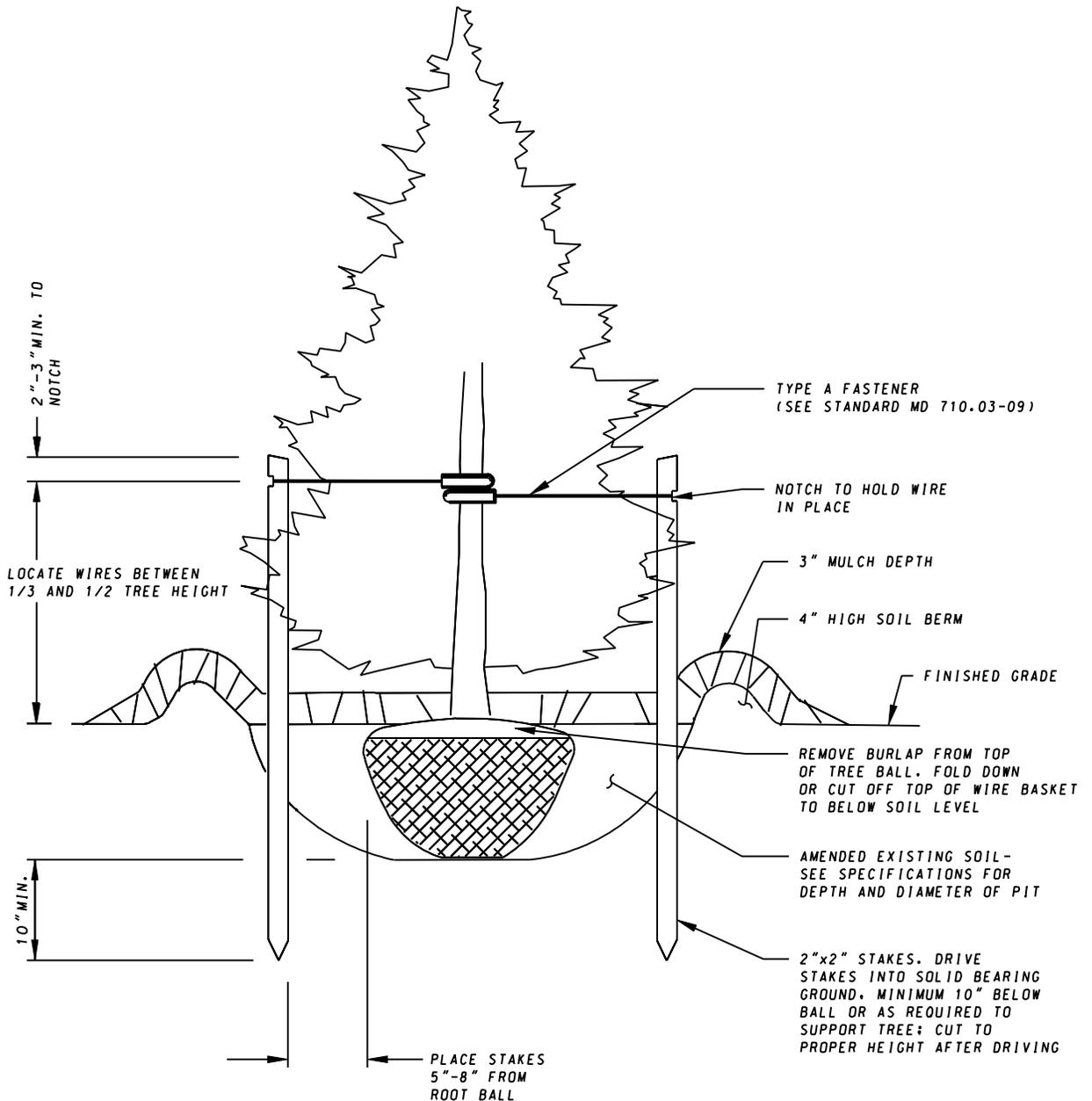


MDSHA BOOK OF STANDARD

FOR HIGHWAYS, INCIDENTAL STRUCTURES AND TRAFFIC CONTROL APPLICATIONS

STANDARD NUMBER	DESCRIPTION	Approval Dates	
		MDSHA	FHWA
	CATEGORY "7" LANDSCAPING		
MD 710.03-01	STAKING EVERGREEN TREES 5 AND 6 FEET HIGH	10/01/01	6/18/97
MD 710.03-02	STAKING EVERGREEN TREES 7,8 AND 9 FEET	10/01/01	6/18/97
MD 710.03-03	GUYING EVERGREEN TREES 10 FEET HIGH AND GREATER	10/01/01	6/18/97
MD 710.03-04	STAKING FLOWERING TREES 6 FEET HIGH TO 2½ INCH CALIPER	10/01/01	6/18/97
MD 710.03-05	GUYING FLOWERING TREES 3 INCH CALIPER AND GREATER	10/01/01	6/18/97
MD 710.03-06	STAKING SHADE TREES 6 FEET HIGH TO 2 INCH CALIPER	10/01/01	6/18/97
MD 710.03-07	STAKING SHADE TREES 2 ½ INCH TO 3 ½ INCH CALIPER	10/01/01	6/18/97
MD 710.03-08	GUYING SHADE TREES 4 INCH CALIPER AND GREATER	10/01/01	6/18/97
MD 710.03-09	FASTENERS FOR TREE SUPPORT	10/01/01	6/18/97
MD 710.03-10	PLANTING VINES ADJACENT TO WALLS FLAT AREAS AND SLOPES FLATTER THAN 4:1	10/01/01	6/18/97
MD 710.03-11	PLANT BED MULCHING AND PLANT LAYOUT ON FLAT AREAS AND SLOPES FLATTER THAN 4:1	10/01/01	6/18/97
MD 710.03-12	PLANT BED MULCHING AND PLANT LAYOUT ON SLOPES 4:1 AND STEEPER	10/01/01	6/18/97
MD 710.03-13	PRUNING PATTERNS	10/01/01	6/18/97
MD 710.03-14	PLANTING TREES ON SLOPES FROM 3:1 TO 2:1	10/01/01	6/18/97
MD 710.03-15	ROOT COLLAR HEIGHTS FOR VARYING SOIL CONDITIONS	10/01/01	6/18/97



NOTES

1. LOCATE STAKES PARALLEL TO NEAREST ROADWAY OR PAVEMENT AREA FOR UNIFORM APPEARANCE.
2. CENTER TREE IN PLANTING PIT.

SPECIFICATION 710	CATEGORY CODE ITEMS
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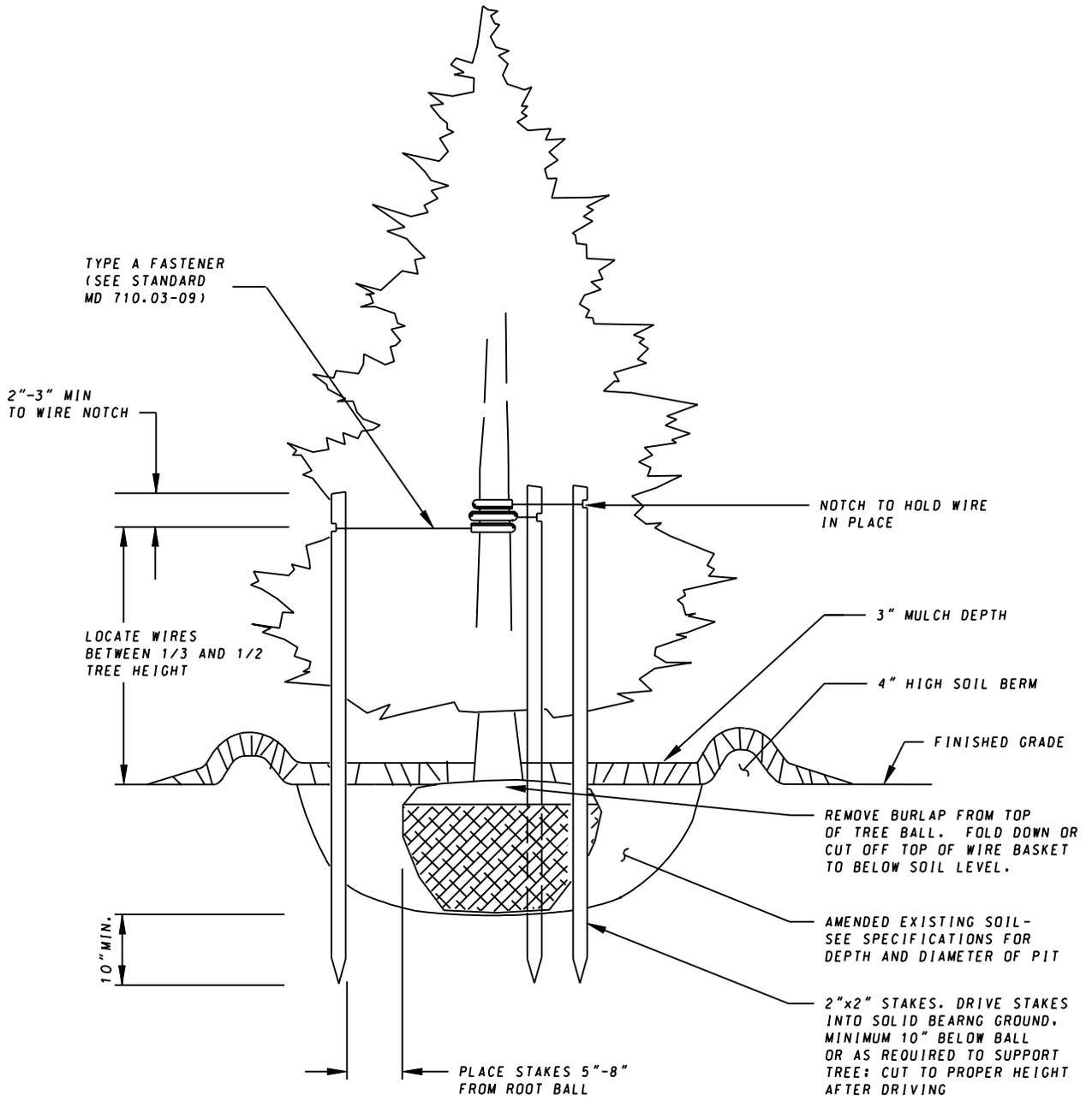
APPROVED *Kirk G. McCall*
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STAKING EVERGREEN TREES
5 AND 6 FEET HIGH

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 10-28-97	APPROVAL 6-18-97
	REVISED 10-1-01	REVISED
	REVISED	REVISED

STANDARD NO. MD 710.03-01



NOTES

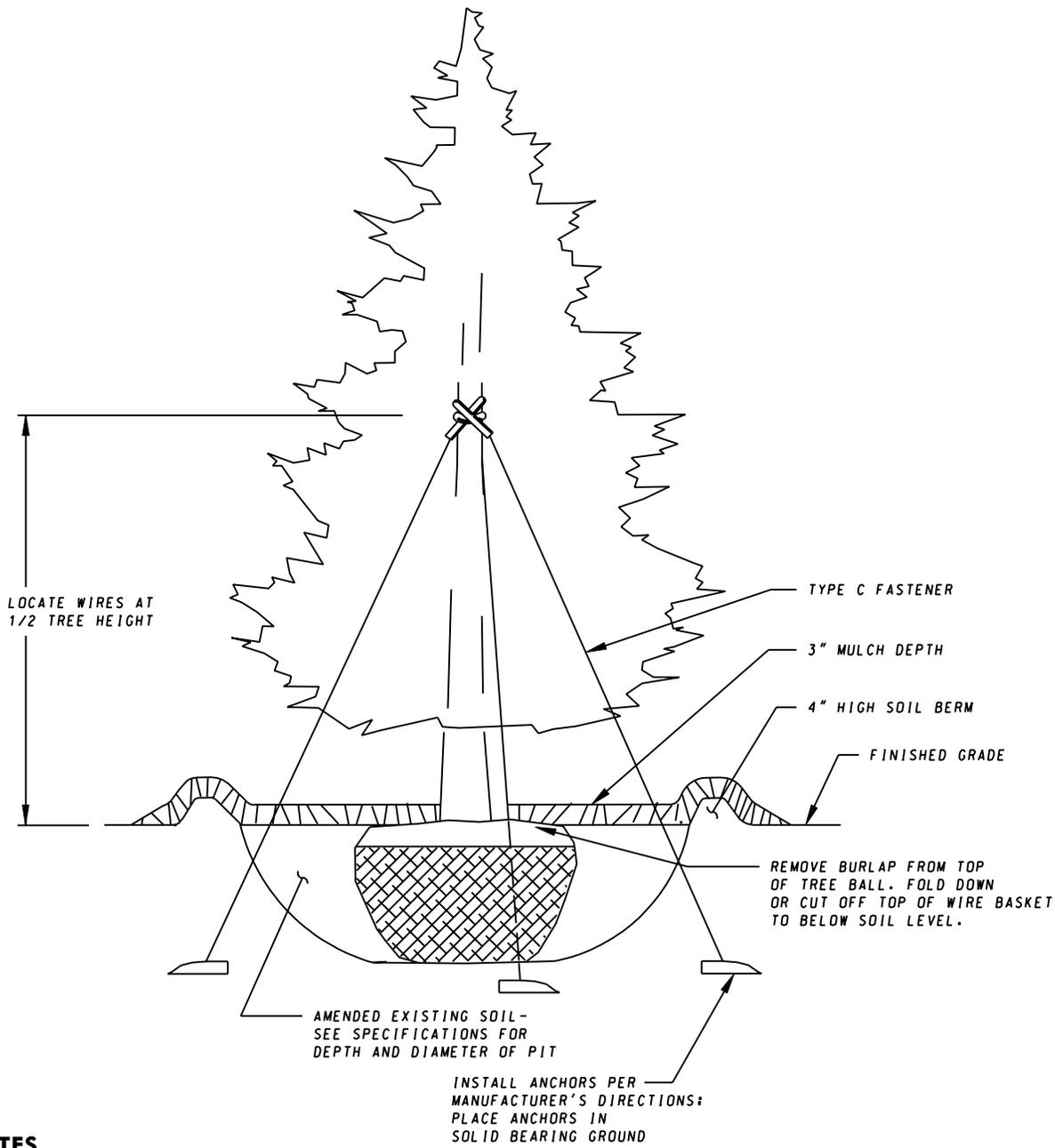
1. PLACE STAKES 120 DEGREES APART.
2. LOCATE TWO STAKES PARALLEL TO NEAREST ROADWAY OR PAYMENT AREA FOR UNIFORM APPEARANCE.
3. CENTER TREE IN PLANTING PIT.

SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL 10-28-97
	REVISED 10-1-01
	REVISED
	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STAKING EVERGREEN TREES
7, 8, AND 9 FEET

STANDARD NO. MD 710.03-02



NOTES

1. PLACE GUYS 120 DEGREES APART.
2. LOCATE TWO GUYS PARALLEL TO NEAREST ROADWAY OR PAVEMENT FOR UNIFORM APPEARANCE.
3. CENTER TREE IN PLANTING PIT.

INSTALL ANCHORS PER MANUFACTURER'S DIRECTIONS: PLACE ANCHORS IN SOLID BEARING GROUND

SPECIFICATION 710	CATEGORY CODE ITEMS
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APPROVED *Kirk G. McCall*
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT



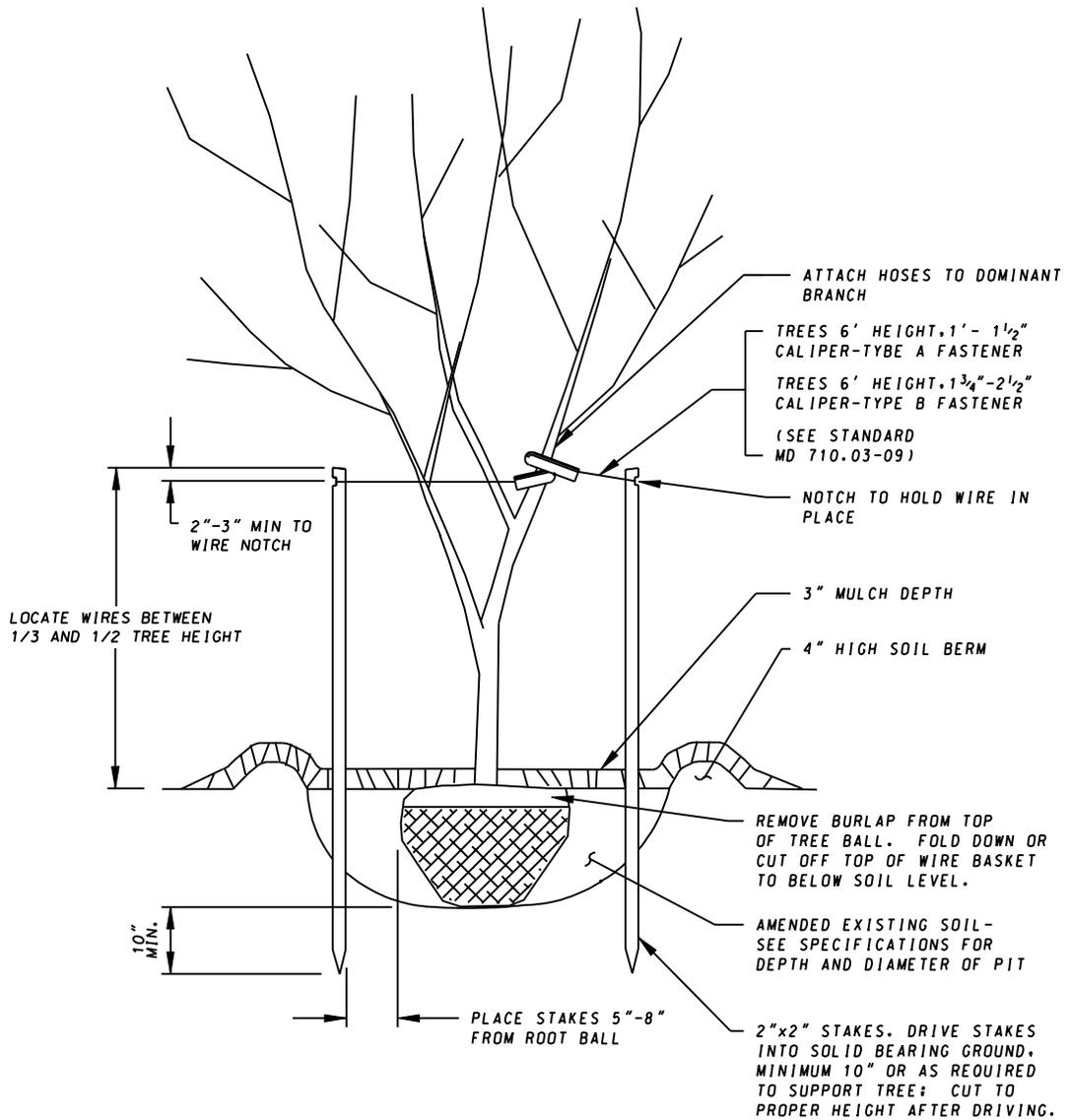
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 10-28-97	APPROVAL 6-18-97
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

**Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION**

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

**GUYING EVERGREEN TREES
10 FEET HIGH AND GREATER**

STANDARD NO. MD 710.03-03



NOTES

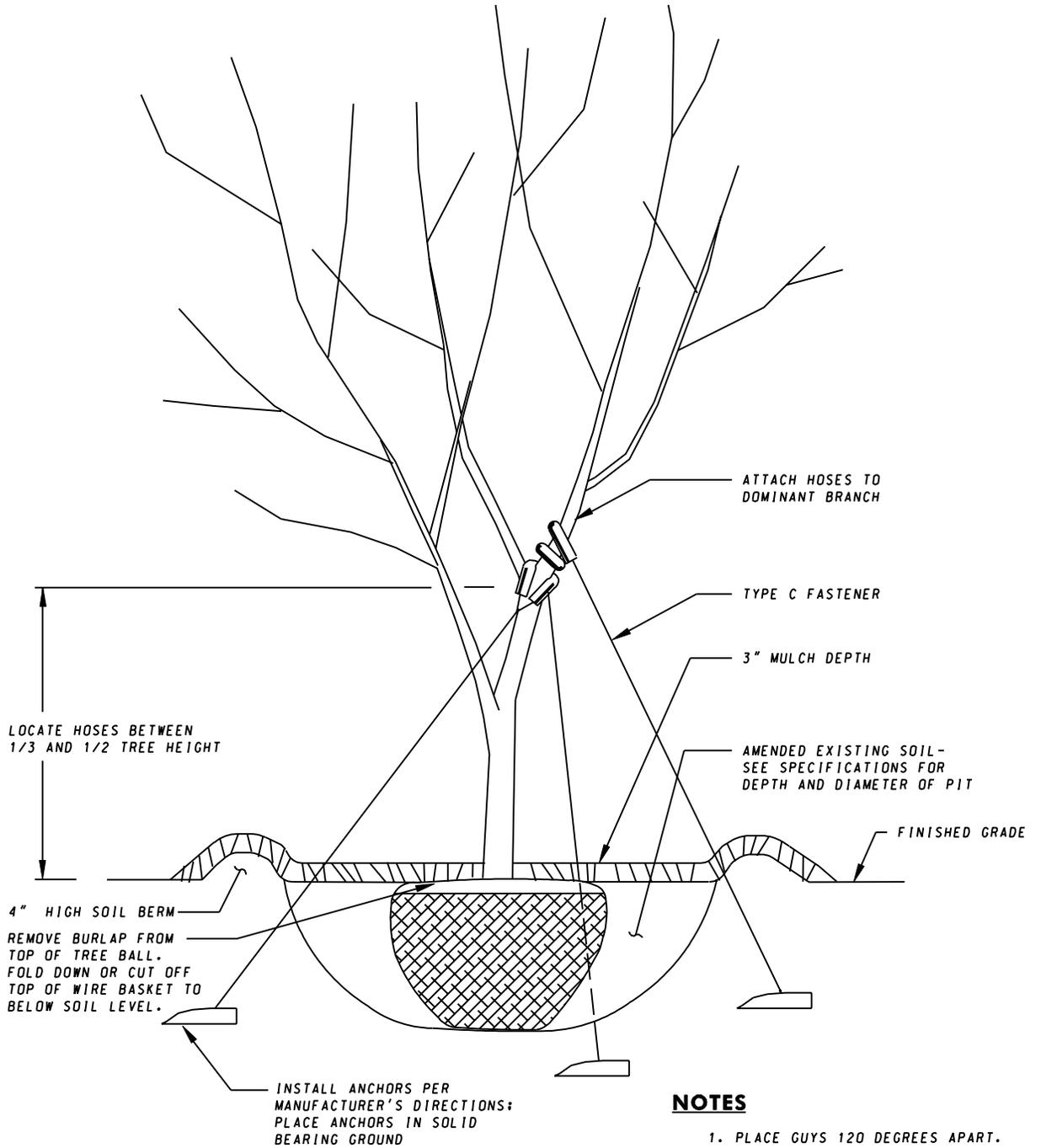
1. LOCATE STAKES PARALLEL TO NEAREST ROADWAY OR PAVEMENT AREA FOR UNIFORM APPEARANCE.
2. CENTER TREE IN PLANTING PIT.

SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 10-28-97
	APPROVAL 6-18-97
	REVISD 10-1-01
REVISD	REVISD
REVISD	REVISD
REVISD	REVISD

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STAKING FLOWERING TREES
6 FEET HIGH TO 2 1/2 INCH CALIPER

STANDARD NO. MD 710.03-04



NOTES

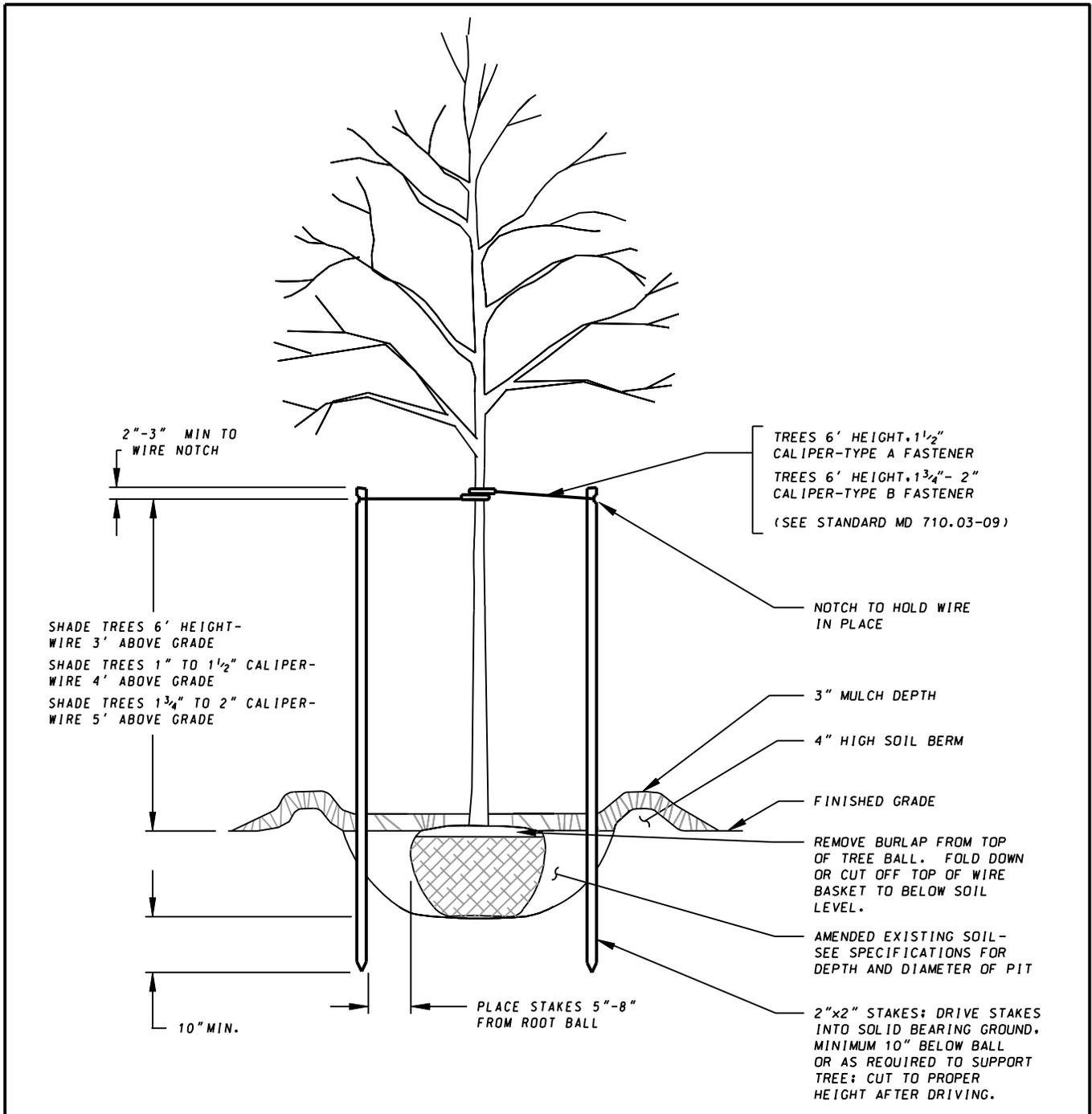
1. PLACE GUYS 120 DEGREES APART.
2. LOCATE TWO GUYS PARALLEL TO NEAREST ROADWAY OR PAVEMENT AREA FOR UNIFORM APPEARANCE.
3. CENTER TREE IN PLANTING PIT.

SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL 10-28-97
	REVISED 10-1-01
	REVISED
	REVISED
APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	APPROVAL 6-18-97
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GUYING FLOWERING TREES
3 INCH CALIPER AND GREATER

STANDARD NO. MD 710.03-05



NOTES

1. LOCATE STAKES PARALLEL TO NEAREST ROADWAY OR PAVEMENT AREA FOR UNIFORM APPEARANCE.
2. CENTER TREE IN PLANTING PIT.

SPECIFICATION 710	CATEGORY CODE ITEMS	
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 10-28-97	APPROVAL 6-18-97
	REVISED 10-1-01	REVISED
	REVISED	REVISED
	REVISED	REVISED

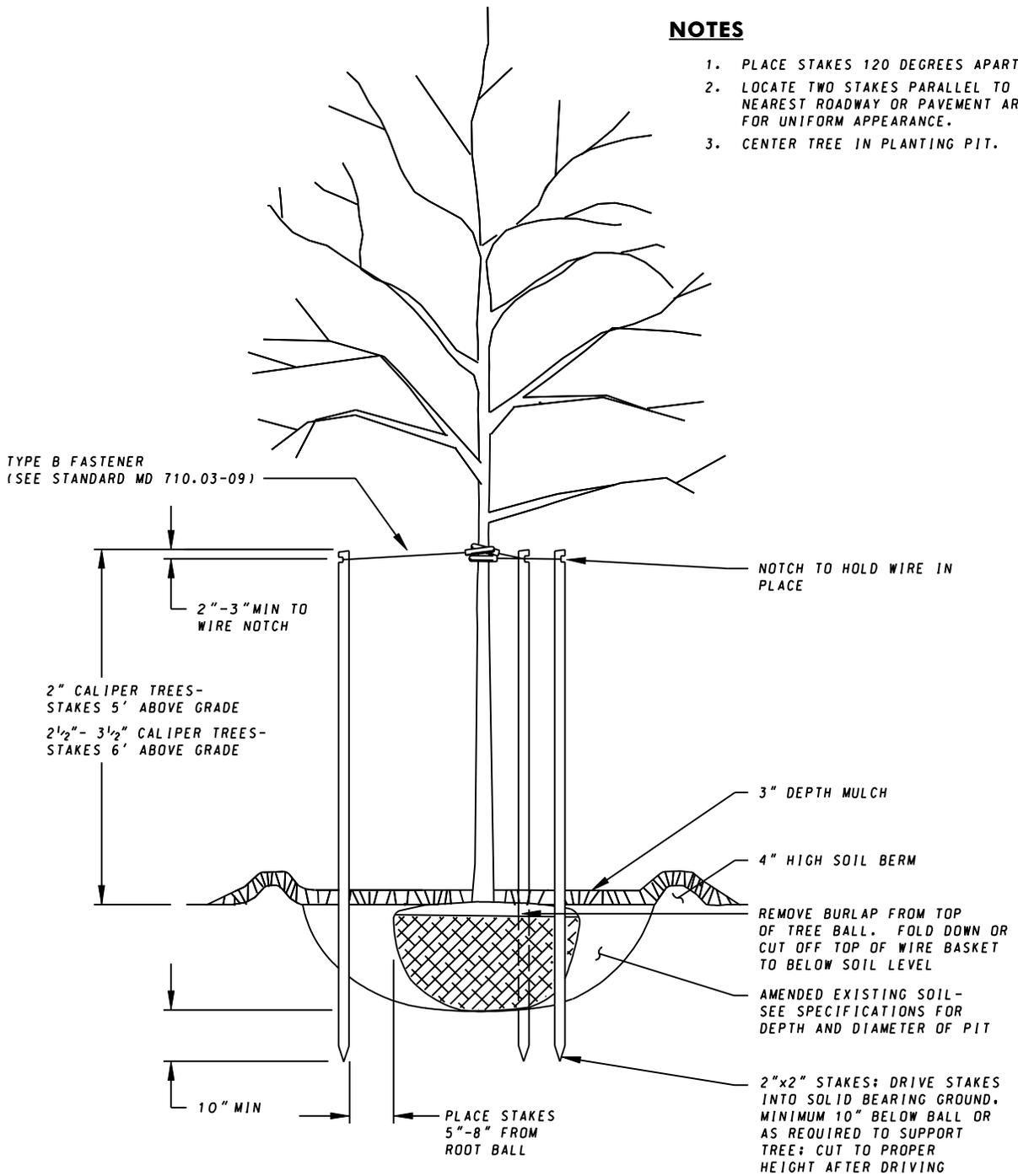
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STAKING SHADE TREES
6' HIGH TO 2" CALIPER

STANDARD NO. MD 710.03-06

NOTES

1. PLACE STAKES 120 DEGREES APART.
2. LOCATE TWO STAKES PARALLEL TO NEAREST ROADWAY OR PAVEMENT AREA FOR UNIFORM APPEARANCE.
3. CENTER TREE IN PLANTING PIT.

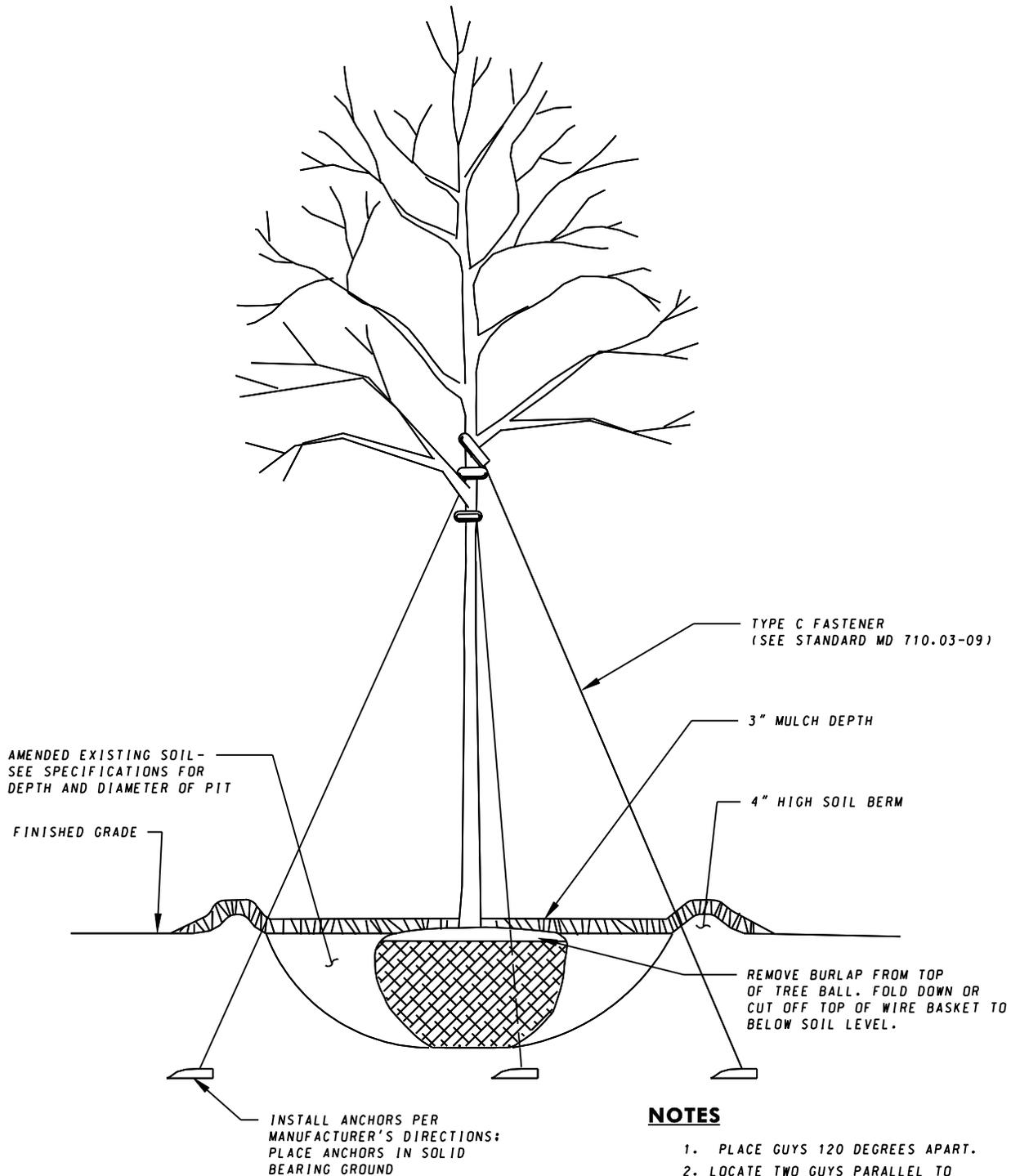


SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL 10-28-97
	REVISED 10-1-01
	REVISED
	REVISED
APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	APPROVAL 6-18-97
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STAKING SHADE TREES
2 1/2" CALIPER TO 3 1/2" CALIPER

STANDARD NO. MD 710.03-07



NOTES

1. PLACE GUYS 120 DEGREES APART.
2. LOCATE TWO GUYS PARALLEL TO NEAREST ROADWAY OR PAVEMENT AREA FOR UNIFORM APPEARANCE.
3. CENTER TREE IN PLANTING PIT.

SPECIFICATION 710	CATEGORY CODE ITEMS
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APPROVED *Kirk G. McCall*
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

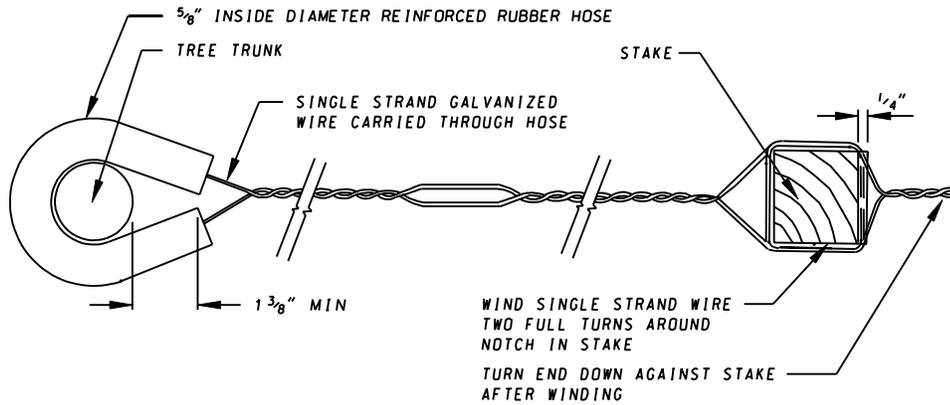


APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 10-28-97	APPROVAL 6-18-97
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

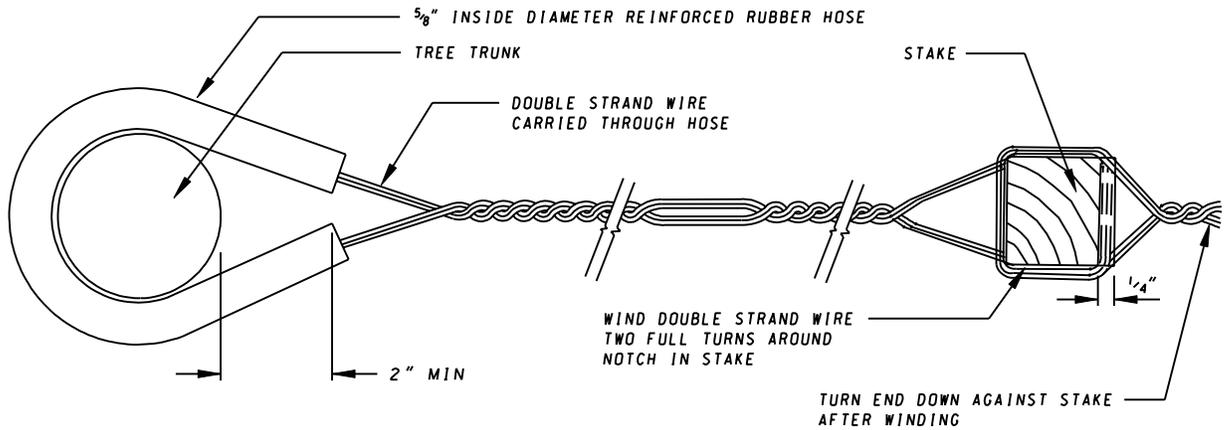
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

GUYING SHADE TREES
4" CALIPER AND GREATER

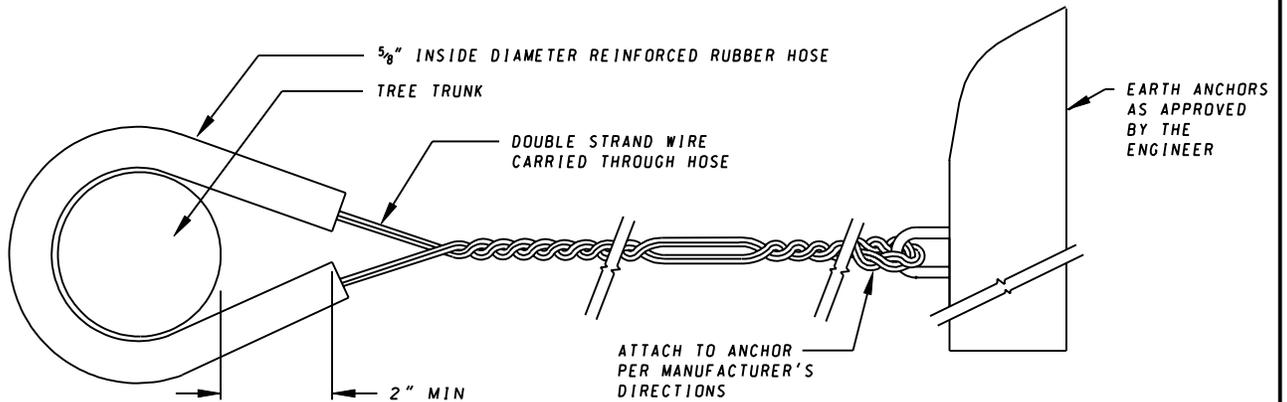
STANDARD NO. MD 710.03-08



SINGLE STRAND 14 GAUGE, GALVANIZED, WIRE FASTENER - TYPE A



DOUBLE STRAND 14 GAUGE, GALVANIZED, WIRE FASTENER - TYPE B



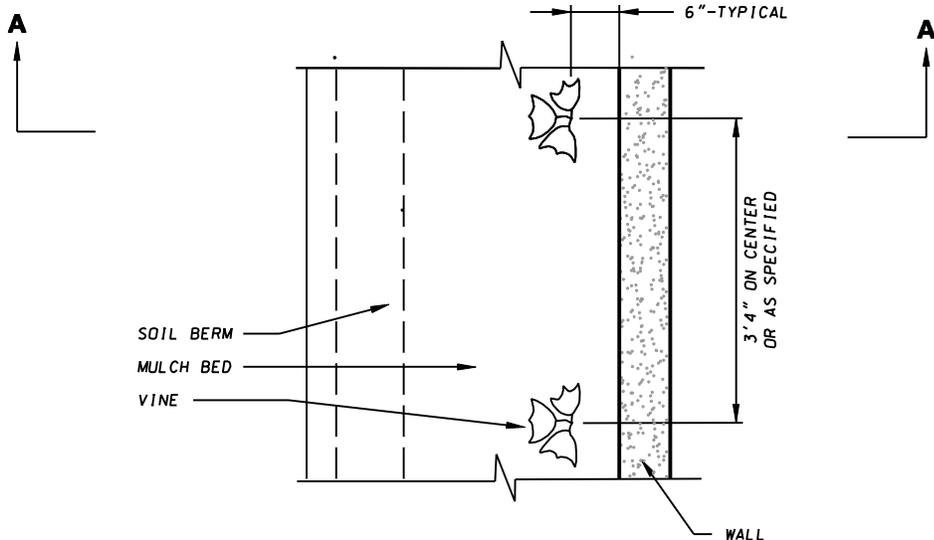
DOUBLE STRAND 12 GAUGE, GALVANIZED, WIRE FASTENER - TYPE C

SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL 10-28-97
	REVISED 10-1-01
	REVISED
	REVISED

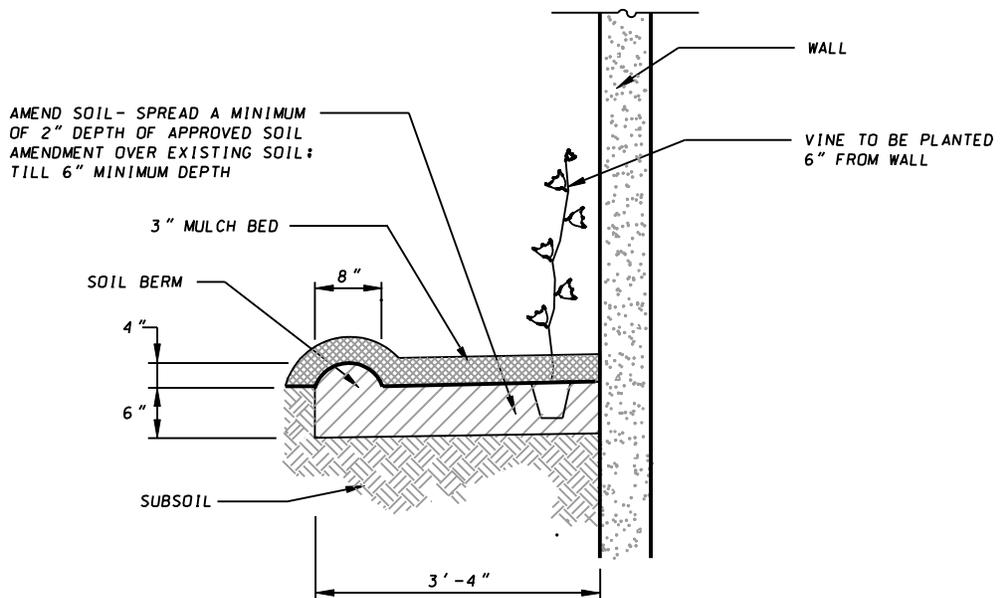
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

FASTENERS FOR TREE SUPPORT

STANDARD NO. MD 710.03-09



PLAN VIEW



SECTION A-A

SPECIFICATION 710	CATEGORY CODE ITEMS
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APPROVED *Kirk G. McCall*
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

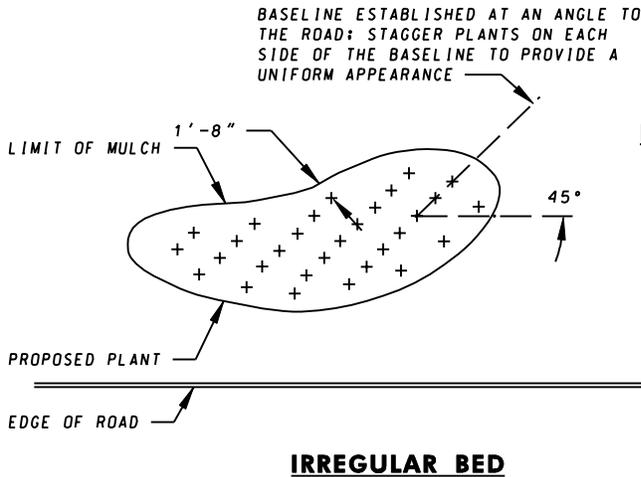
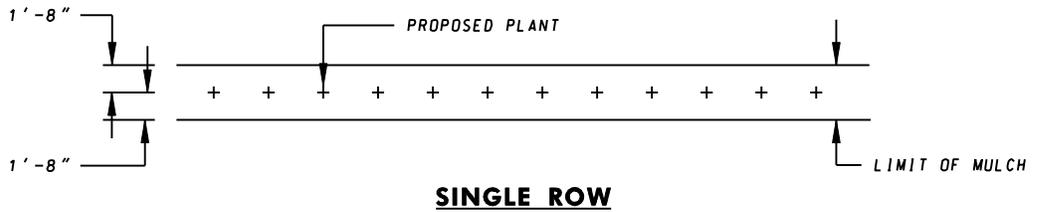
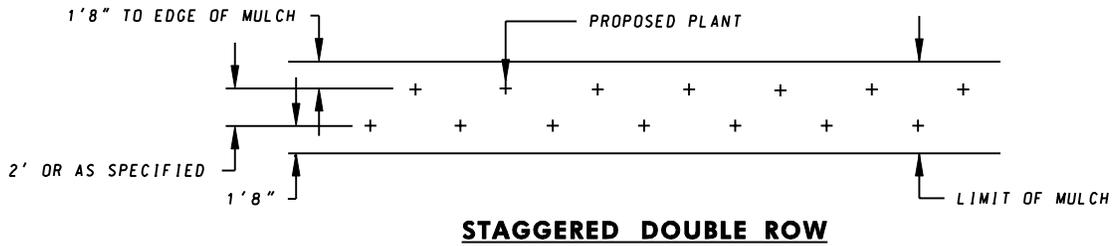


APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 10-28-97	APPROVAL 6-18-97
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PLANTING VINES ADJACENT TO WALLS
FLAT AREAS AND SLOPES FLATTER THAN 4:1

STANDARD NO. MD 710.03-10



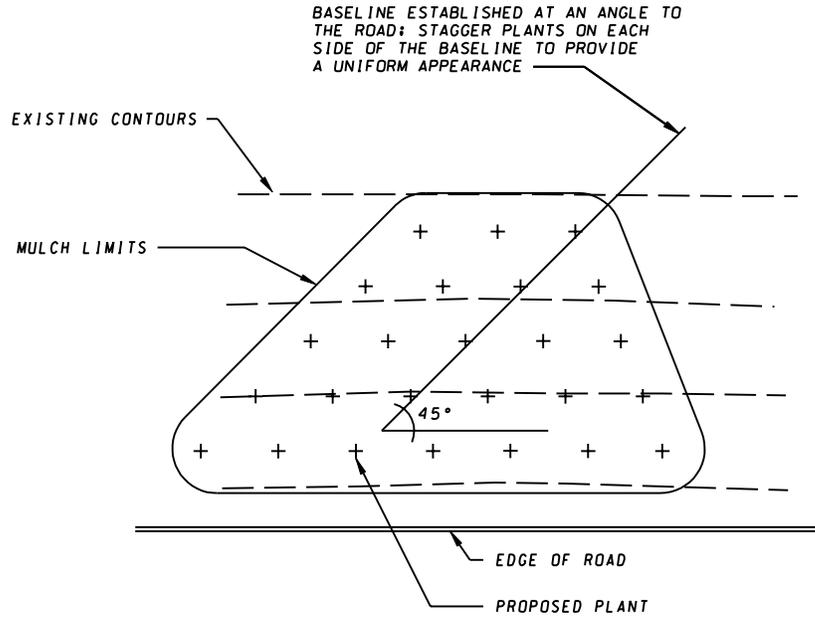
NOTE

SPACING OF SHRUBS AND WIDTH OF BED ARE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL 10-28-97
	REVISED 10-1-01
	REVISED
APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	APPROVAL 6-18-97
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
PLANT BED MULCHING AND PLANT LAYOUT
ON FLAT AREAS AND
SLOPES FLATTER THAN 4:1

STANDARD NO. MD 710.03-11



**PLAN VIEW - PLANTING BED
ON SLOPE**

NOTE

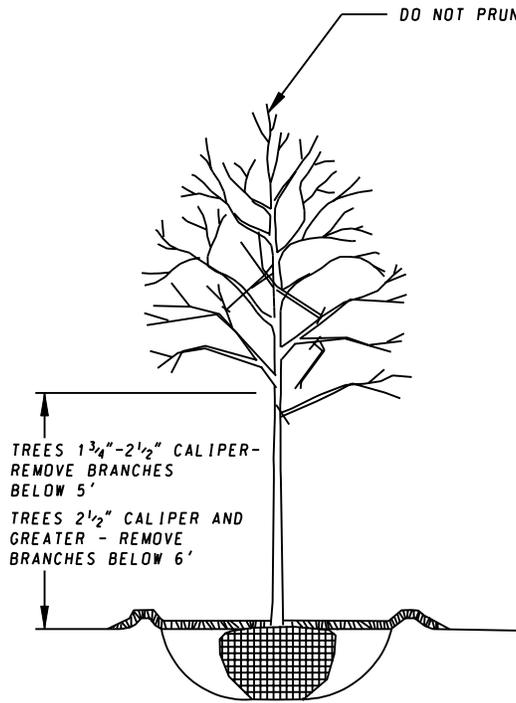
SPACING FOR SHRUBS AND WIDTH OF BED ARE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL 10-28-97
	REVISED 10-1-01
	REVISED
APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	APPROVAL 6-18-97
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

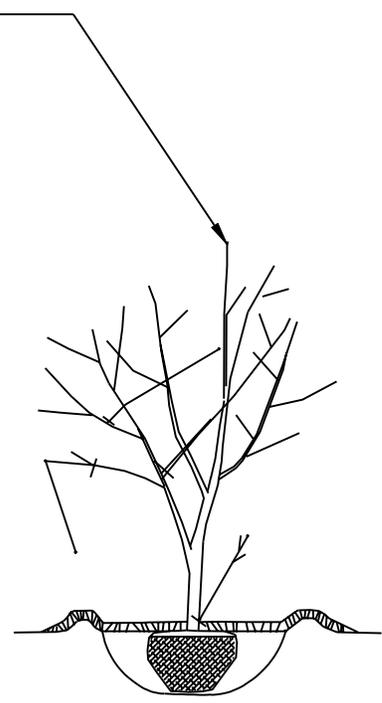
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

**PLANT BED MULCHING AND PLANT LAYOUT
ON SLOPES 4:1 AND STEEPER**

STANDARD NO. MD 710.03-12



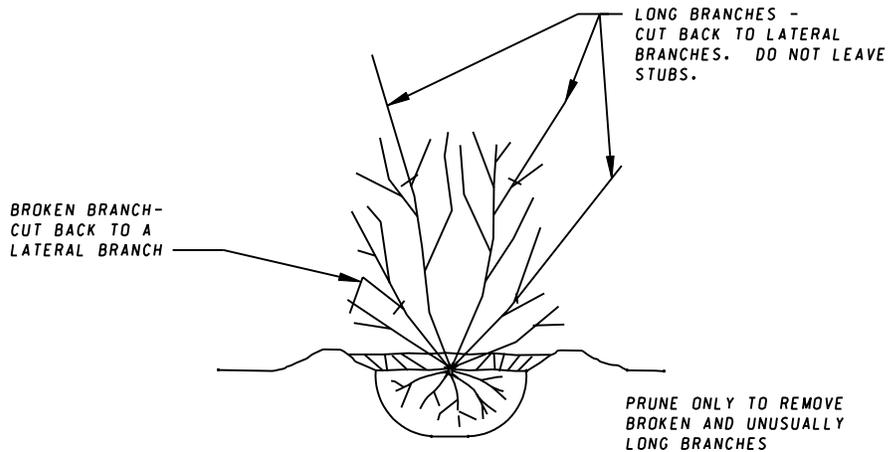
SHADE TREE



FLOWERING TREE

PRUNE TO REMOVE BROKEN, DEAD, AND DAMAGED BRANCHES. PRUNE TO IMPROVE STRUCTURE BY REMOVING SUCKERS AND LEAST DESIRABLE OF CROSSING OR RUBBING BRANCHES. ON TREES WITH DOMINANT LEADERS, REMOVE COMPETING SECONDARY LEADERS. ON SHADE TREES, REMOVE LOWER LIMBS WHEN REQUIRED. ALL PRUNING SHALL BE AS APPROVED BY THE ENGINEER.

PRUNING SHALL CONFORM WITH THE CURRENT EDITION OF THE NATIONAL ARBORIST ASSOCIATION STANDARDS.



SHRUB

SPECIFICATION 710	CATEGORY CODE ITEMS
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APPROVED *Kirk G. McCall*
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

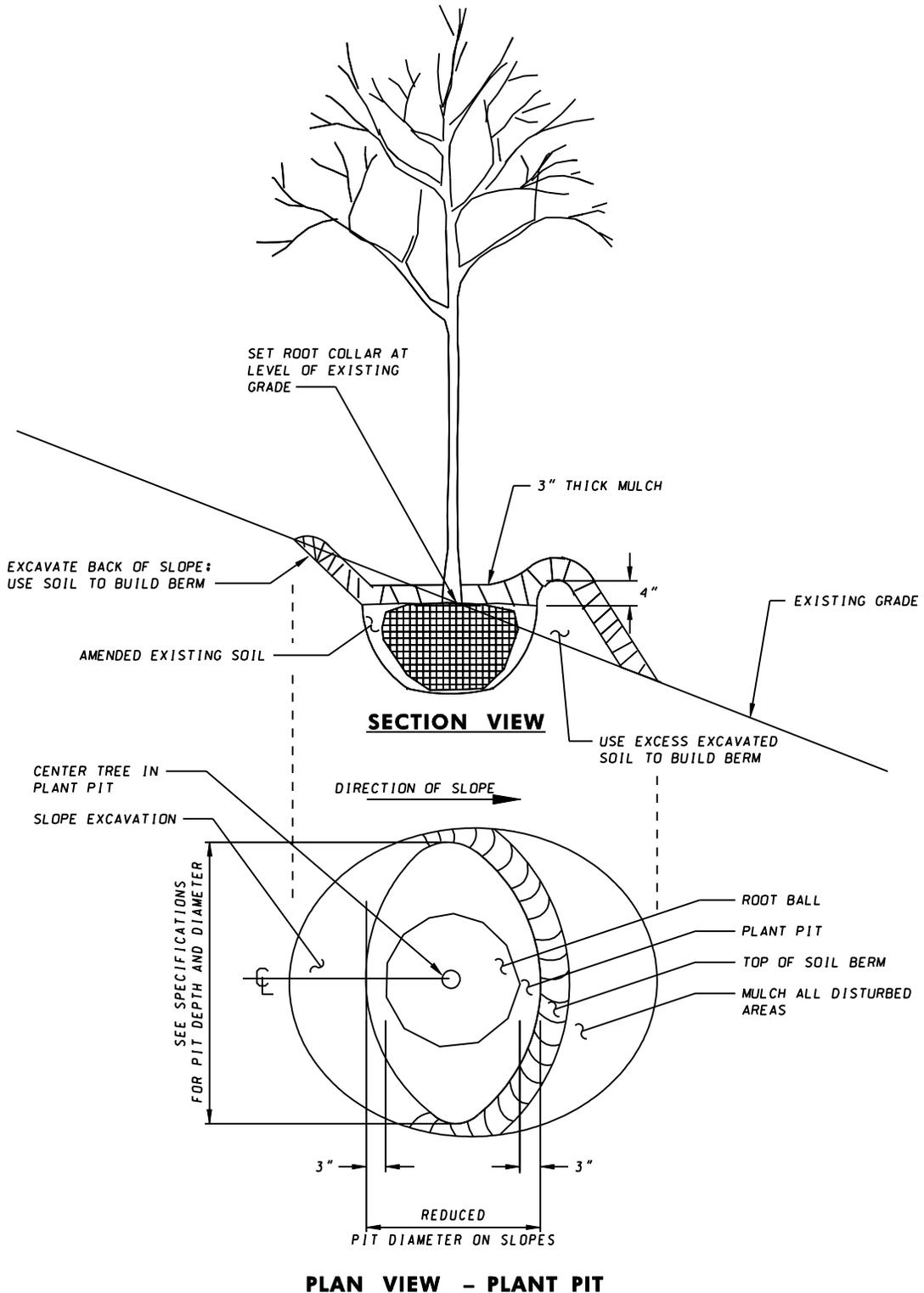
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES



APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 10-28-97	APPROVAL 6-18-97
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

PRUNING PATTERNS

STANDARD NO. MD 710.03-13

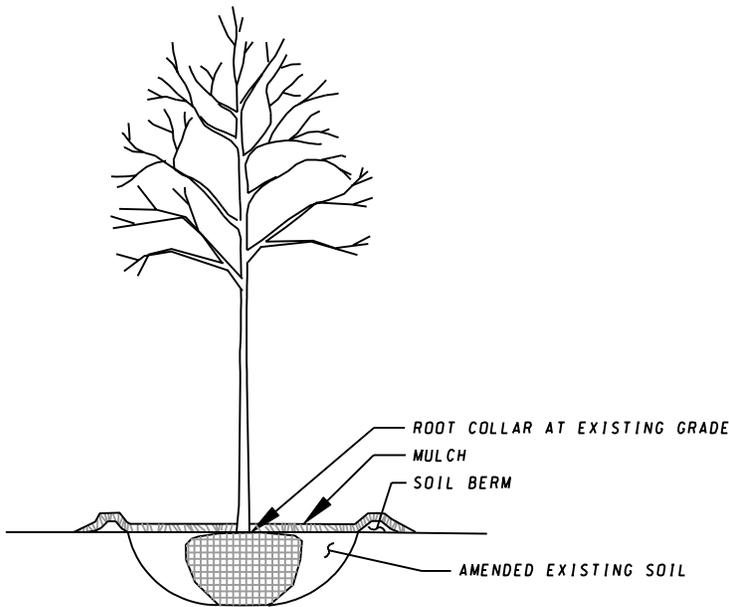


SPECIFICATION 710	CATEGORY CODE ITEMS
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL 10-28-97
	REVISED 10-1-01
	REVISED

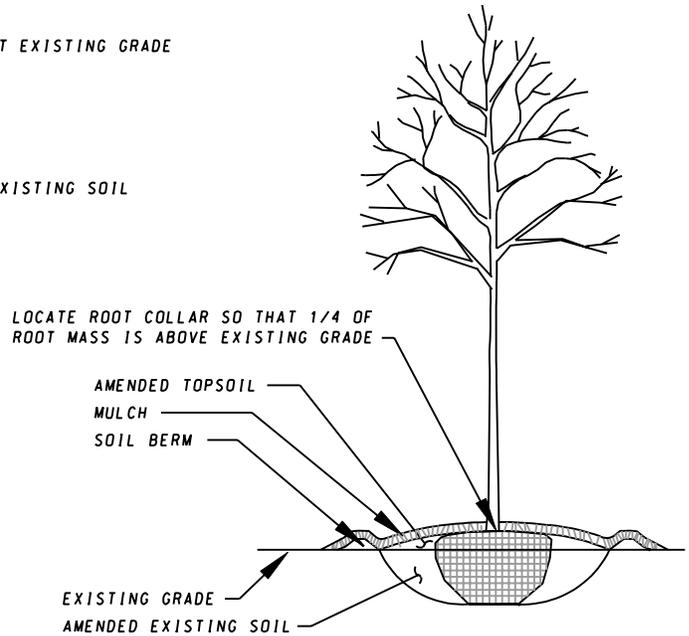
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PLANTING TREES ON SLOPES
FROM 3:1 TO 2:1

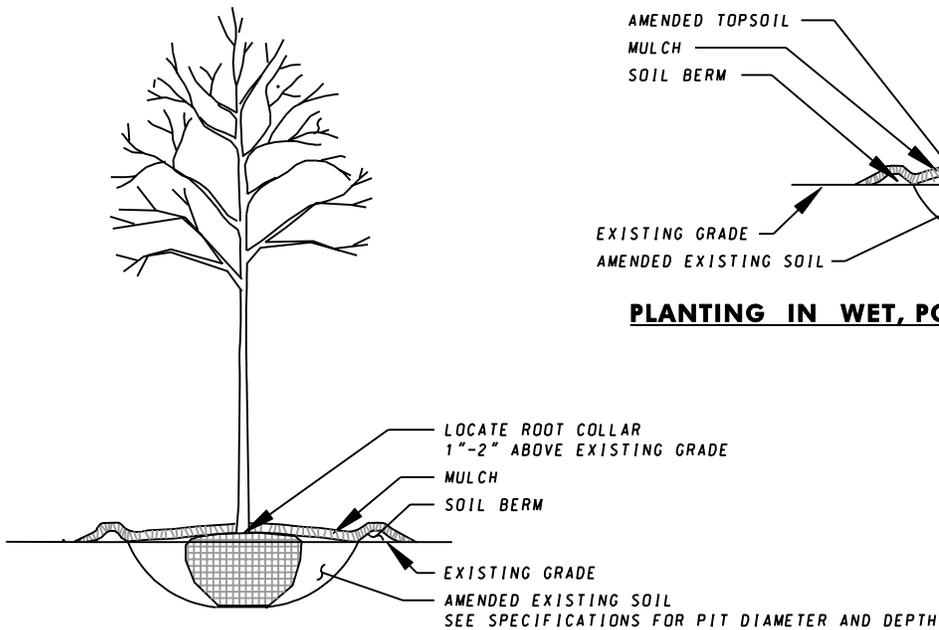
STANDARD NO. MD 710.03-14



PLANTING IN WELL-DRAINED SOIL



PLANTING IN WET, POORLY DRAINED SOIL



PLANTING IN COMPACTED SOIL

SPECIFICATION 710	CATEGORY CODE ITEMS
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APPROVED *Kirk G. McCall*
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 10-28-97	APPROVAL 6-18-97
	REVISED 10-1-01	REVISED
	REVISED	REVISED
	REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

ROOT COLLAR HEIGHTS FOR VARYING SOIL CONDITIONS

STANDARD NO. MD 710.03-15